



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.: 10/003,725

Confirmation No. 2647

Applicants: Stapleton

Filed: October 30, 2001

TC/A.C.: 2817

Examiner: Choe, Henry

Docket No.: BWD:2353.005

Title: **HIGH EFFICIENCY POWER AMPLIFIER SYSTEMS AND METHODS**

Customer No.: 23400

Date: January 23, 2004

Certificate of Mailing	
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on	
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Kristi Green	
Kristi Green	

**INFORMATION DISCLOSURE STATEMENT**

Commissioner For Patents  
P O Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with 37 C.F.R. §1.56 and in compliance with 37 C.F.R. §§1.97 and 1.98, the references listed on attached Form PTO/SB/08 and/or subsequently identified herein, are being submitted herewith for consideration by the United States Patent and Trademark Office.

I. **COPIES**

- a. ☒ A legible copy of (i) each U.S. and foreign patents; (ii) each publication or that portion which caused it to be listed; and (iii) all other information or that portion which caused it to be listed, is included herewith.
- b. ☐ Any patents, publications or other information which are listed on PTO/SB/08 which are not enclosed herewith were previously cited by or submitted to the

PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. §120:

U.S. Serial Number

U.S. Filing Date

II. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

- a. ☒ Except as may be indicated below in (b) of this section, all of the patents, publications or other information are in the English language (concise explanation not required).
- b. ☐ A concise explanation of the relevance of all patents, publications or other information listed that is not in the English language is as follows:
- c. ☐ The following additional information is provided for the Examiner's consideration:

III. ☐ CROSS REFERENCE TO RELATED APPLICATION(S)

The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this (these) applications to the Examiner's attention, Applicant(s) does(do) not waive the confidentiality provisions of 35 U.S.C. §122.

Serial No.

Filing Date

Art Unit

**FEES**

IV. ☒ THIS IDS IS BEING FILED UNDER 37 C.F.R. §1.97(b): (check one box)

- a. ☐ within three months of the filing date of a national application (37 C.F.R. §1.97(b)(1)). No fee or statement is required.
- b. ☐ within three months of the date of entry of the national stage as set forth in § 1.491 in an international application (37 C.F.R. §1.97(b)(2)). No fee or statement is required.
- c. ☐ before the mailing date of a first Office Action on the merits (37 C.F.R. §1.97(b)(3)). No fee or statement is required.
- d. ☒ In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. §1.97(c) and see the statement under 37 C.F.R. §1.97(e) provided below, or if no statement has been made, charge deposit account **50-1147** the fee set forth in 37 C.F.R. §1.17(p).

V. ☒ THIS IDS IS BEING FILED UNDER 37 C.F.R. §1.97(c): (check one box)  
before the mailing date of either a Final Office Action under 37 C.F.R. §1.113 (See 37 C.F.R. §1.97(c)), or a Notice of Allowance under 37 C.F.R. §1.311 (See 37 C.F.R. §1.97(c)).

- a. ☐ No statement; therefore, charge deposit account **50-1147** the fee set forth in 37 C.F.R. §1.17(p).
- b. ☒ See the statement below. No fee is required.

VI. ☐ THIS IDS IS BEING FILED UNDER 37 C.F.R. §1.97(d):

on or before payment of the issue fee and is accompanied by the following:

- 1) a statement under 37 C.F.R. §1.97(e) as provided below;
- 2) Applicant(s) hereby a petition for consideration of this information disclosure statement; and
- 3) charge deposit account **50-1147** the petition fee set forth in §1.17(i).

VII. Statement under 37 C.F.R. §1.97(e) (check only one box, if applicable)  
The undersigned hereby states that

- a. ☐ each item of information contained in the IDS was cited in a communication from a foreign Patent Office is a counterpart foreign application not more than three months prior to the filing of IDS; or
- b. ☒ no item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application, and to knowledge of the person signing the statement after making reasonable inquiry, no item of information contained in the IDS was known to any individual designated in 37 C.F.R. 1.56(c) more than three months prior to the filing of this statement, or
- c. ☐ some of the items of information contained in the IDS were cited in a communication from a foreign Patent Office. As to this information, the undersigned states that each item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby states that no item of this remaining information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application or, to the knowledge of the person signing the statement after making reasonable inquiry, no item of information contained in the IDS was

known to any individual designated in 37 C.F.R. 1.56(c) more than three months prior to the filing of this statement.

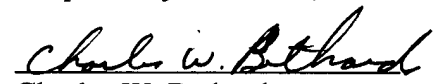
VIII. PAYMENT OF FEES

- ☐ A check in the amount of \_\_\_\_\_ is enclosed for the above-identified fee(s).
- ☐ Please charge Deposit Account No. **50-1147** in the amount of \$\_\_\_\_\_ for the above-indicated fee(s).
- ☒ If Applicant has overlooked any additional fees, or if any overpayment has been made, the Commissioner is hereby authorized to credit or debit Deposit Account **50-1147**.

The above references are being cited only in the interests of candor and without any admission that they constitute statutory prior art or contain matter which anticipates the invention or which would render the same obvious, either singly or in a combination, to a person or ordinary skill in the art.

If the Examiner has any questions concerning this IDS, he/she is requested to contact the undersigned. If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. **50-1147**.

Respectfully submitted,

  
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FOIPA PTO-1449	ATTY. DKT	BWD:2353.005/34-001	SER. NO.	10/003,727
	APPLICANT	Stapleton		
	FILING DATE	October 30, 2001	GROUP	

## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS
	AA	5,352,986	October 4, 1994	Modgil et al	330/10	330/107
	AB	4,843,339	June 27, 1989	Burt et al	330/10	328/151
	AC	6,373,334 B1	April 16, 2002	Melanson	330/10	330/207
	AD	6,630,899 B2	October 7, 2003	Jayaraman	341/200	330/151
	AE	6,577,189 B2	June 10, 2003	Jayaraman et al	330/107	330/10
	AF	5,777,512	July 7, 1998	Tripathi et al	330/207A	330/110
	AG	6,191,653	February 20, 2001	Camp,Jr.et al	330/129	330/10

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

	AH	Dallago, Single-Cycle Quasi-Resibabt Converters as Sigma-Delta Audio Power Stages, IEEE June 1996 , pp 645-650.
	AI	Anderson, A NEW APPLICATION FOR ZERO-CURRENT-SWITCHED FULL-WAVE RESONANT CONVERTERS, European Power Electronics Ass. 1993, pp 83-86.
	AJ	Luckjiff, Dobson, Divan, Interpolative Sigma Delta Modulators for High Frequency Power Electronic Applications, IEEE June 18, 1995, pp 444-449.
	AK	Ballan, Declercq, 12V $\Sigma$ - $\Delta$ AMPLIFIER IN 5V CMOS TECHNOLOGY, IEEE 1995 Custom Integrated Circuits Conference, pp 26.5.1-26.54
	AL	Opris & Kovacs, A Video bandwidth Analog Median Circuit, IEEE 1995 Custom Integrated Circuits Conference, pp 26.4.1-26.4.4
EXAMINER		DATE CONSIDERED